

Regional HIV/AIDS Epidemiologic Profile of Essex County, Massachusetts: 2013

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2013, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2012: Essex County, Massachusetts²

| | N | % |
|---|--------------|-------------|
| People Living with HIV/AIDS | 1,552 | 61% |
| People Reported with HIV or AIDS who are Deceased | 1,003 | 39% |
| Total Number of People Reported with HIV Infection or AIDS | 2,555 | 100% |

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 2. Average annual rate of HIV infection diagnosis from 2009 to 2011 and HIV/AIDS prevalence rate on 12/31/12¹: Essex County, Massachusetts²

| Average annual HIV diagnosis rate from 2009–2011 | Average rate per 100,000 | Average annual number of HIV diagnoses |
|---|---------------------------------|---|
| Essex County, MA | 7.6 | 56.3 |
| Massachusetts Total | 10.3 | 664.7 |
| HIV/AIDS prevalence rate on 12/31/12 | Rate per 100,000 | Number of people living with HIV/AIDS |
| Essex County, MA | 208.8 | 1,552 |
| Massachusetts Total | 277.5 | 18,170 |

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2002–2011, Essex County, Massachusetts³

| Year | HIV/AIDS Prevalence | Deaths among those with HIV/AIDS | Diagnosis of HIV Infection |
|-------------|----------------------------|---|-----------------------------------|
| 2002 | 1,122 | 34 | 88 |
| 2003 | 1,172 | 34 | 84 |
| 2004 | 1,226 | 22 | 76 |
| 2005 | 1,278 | 26 | 78 |
| 2006 | 1,314 | 26 | 62 |
| 2007 | 1,340 | 33 | 59 |
| 2008 | 1,392 | 14 | 66 |
| 2009 | 1,427 | 22 | 57 |
| 2010 | 1,462 | 27 | 62 |
| 2011 | 1,489 | 23 | 50 |

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 4. People diagnosed with HIV infection from 2009–2011¹ and people living with HIV/AIDS on December 31, 2012 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Essex County, Massachusetts²

| HIV Infection Diagnoses | | | PLWH/A | |
|--|-----------------|-----------------|----------------------|-----------------|
| Gender: | N | % | N | % |
| Male | 116 | 69% | 1,023 | 66% |
| Female | 53 | 31% | 529 | 34% |
| Place of Birth: | N | % | N | % |
| US | 80 | 47% | 927 | 60% |
| Puerto Rico/US Dependency ³ | 18 | 11% | 237 | 15% |
| Non-US | 71 | 42% | 388 | 25% |
| Race/Ethnicity: | N | % | N | % |
| White (non-Hispanic) | 53 | 31% | 692 | 45% |
| Black (non-Hispanic) | 32 | 19% | 263 | 17% |
| Hispanic/Latino | 78 | 46% | 558 | 36% |
| Asian/Pacific Islander | 6 | 4% | 30 | 2% |
| Exposure Mode: | N | % | N | % |
| Male-to-male sex (MSM) | 54 | 32% | 467 | 30% |
| Injection Drug Use (IDU) | 13 | 8% | 291 | 19% |
| MSM/IDU | -- ⁷ | -- ⁷ | 45 | 3% |
| Heterosexual Sex | 29 | 17% | 278 | 18% |
| Other | -- ⁷ | -- ⁷ | 42 | 3% |
| Total Undetermined | 69 | 41% | 429 | 28% |
| • Presumed Heterosexual Sex ⁴ | 19 | 11% | 153 | 10% |
| • Undetermined ⁵ | 50 | 30% | 276 | 18% |
| Age: | N | % | N | % |
| | At Diagnosis | | On December 31, 2012 | |
| Under 13 | -- ⁷ | -- ⁷ | -- ⁷ | -- ⁷ |
| 13 to 19 | -- ⁷ | -- ⁷ | -- ⁷ | -- ⁷ |
| 20 to 24 | 13 | 8% | 34 | 2% |
| 25 to 29 | 18 | 11% | 40 | 3% |
| 30 to 34 | 24 | 14% | 77 | 5% |
| 35 to 39 | 23 | 14% | 123 | 8% |
| 40 to 44 | 28 | 17% | 164 | 11% |
| 45 to 49 | 22 | 13% | 311 | 20% |
| 50 to 54 | 19 | 11% | 327 | 21% |
| 55 to 59 | 8 | 5% | 239 | 15% |
| 60+ | 10 | 6% | 221 | 14% |
| Total⁶ | 169 | 100% | 1,552 | 100% |

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁷ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 5. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: Essex County, Massachusetts¹

| Race/Ethnicity: | Male | | Female | |
|--------------------------|--------------|-------------|------------|-------------|
| | N | % | N | % |
| White (non-Hispanic) | 555 | 54% | 137 | 26% |
| Black (non-Hispanic) | 132 | 13% | 131 | 25% |
| Hispanic/Latino | 313 | 31% | 245 | 46% |
| Asian/Pacific Islander | 18 | 2% | 12 | 2% |
| Total² | 1,023 | 100% | 529 | 100% |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 6. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: Essex County, Massachusetts¹

| Exposure Mode: | Male | | Female | |
|--|--------------|-------------|------------|-------------|
| | N | % | N | % |
| Male-to-male sex (MSM) | 467 | 46% | N/A | N/A |
| Injection drug use (IDU) | 182 | 18% | 109 | 21% |
| MSM/IDU | 45 | 4% | N/A | N/A |
| Heterosexual sex | 73 | 7% | 205 | 39% |
| Other | 24 | 2% | 18 | 3% |
| Total Undetermined | 232 | 23% | 197 | 37% |
| • Presumed heterosexual sex ² | N/A | N/A | 153 | 29% |
| • Undetermined ³ | 232 | 23% | 44 | 8% |
| Total | 1,023 | 100% | 529 | 100% |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

| | Male | | Female | | Total |
|------|------|-----|--------|-----|-------|
| | N | % | N | % | |
| 2002 | 61 | 69% | 27 | 31% | 88 |
| 2003 | 50 | 60% | 34 | 40% | 84 |
| 2004 | 46 | 61% | 30 | 39% | 76 |
| 2005 | 47 | 60% | 31 | 40% | 78 |
| 2006 | 40 | 65% | 22 | 35% | 62 |
| 2007 | 34 | 58% | 25 | 42% | 59 |
| 2008 | 43 | 65% | 23 | 35% | 66 |
| 2009 | 37 | 65% | 20 | 35% | 57 |
| 2010 | 43 | 69% | 19 | 31% | 62 |
| 2011 | 36 | 72% | 14 | 28% | 50 |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

| | White Non-Hispanic | | Black Non-Hispanic | | Hispanic/Latino | | Total ³ |
|------|--------------------|-----|--------------------|-----|-----------------|-----|--------------------|
| | N | % | N | % | N | % | N |
| 2002 | 32 | 36% | 19 | 22% | 34 | 39% | 88 |
| 2003 | 29 | 35% | 19 | 23% | 36 | 43% | 84 |
| 2004 | 28 | 37% | 16 | 21% | 31 | 41% | 76 |
| 2005 | 28 | 36% | 19 | 24% | 29 | 37% | 78 |
| 2006 | 25 | 40% | 14 | 23% | 23 | 37% | 62 |
| 2007 | 23 | 39% | 9 | 15% | 26 | 44% | 59 |
| 2008 | 22 | 33% | 14 | 21% | 27 | 41% | 66 |
| 2009 | 18 | 32% | 12 | 21% | 26 | 46% | 57 |
| 2010 | 23 | 37% | 13 | 21% | 22 | 35% | 62 |
| 2011 | 12 | 24% | 7 | 14% | 30 | 60% | 50 |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

| | US | | Puerto Rico/ US Dependency ³ | | Non-US | | Total |
|------|-----------------|-----------------|--|-----------------|--------|-----|-------|
| | N | % | N | % | N | % | N |
| 2002 | 44 | 50% | 15 | 17% | 29 | 33% | 88 |
| 2003 | 42 | 50% | 14 | 17% | 28 | 33% | 84 |
| 2004 | 44 | 58% | 9 | 12% | 23 | 30% | 76 |
| 2005 | 40 | 51% | 7 | 9% | 31 | 40% | 78 |
| 2006 | 35 | 56% | 7 | 11% | 20 | 32% | 62 |
| 2007 | 31 | 53% | 9 | 15% | 19 | 32% | 59 |
| 2008 | 38 | 58% | 7 | 11% | 21 | 32% | 66 |
| 2009 | 29 | 51% | 6 | 11% | 22 | 39% | 57 |
| 2010 | 29 | 47% | 8 | 13% | 25 | 40% | 62 |
| 2011 | -- ⁴ | -- ⁴ | -- ⁴ | -- ⁴ | 24 | 48% | 50 |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

⁴ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

| | MSM | | IDU | | MSM/ IDU | | HTSX | | Other | | Pres. HTSX ³ | | Undeter- mined ⁴ | | Total |
|------|-----|-----|-----------------|-----------------|-----------------|-----------------|------|-----|-----------------|-----------------|----------------------------|-----|--------------------------------|-----|-----------|
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N |
| 2002 | 23 | 26% | 17 | 19% | -- ⁵ | -- ⁵ | 9 | 10% | -- ⁵ | -- ⁵ | 14 | 16% | 24 | 27% | 88 |
| 2003 | 21 | 25% | 19 | 23% | -- ⁵ | -- ⁵ | 12 | 14% | -- ⁵ | -- ⁵ | 9 | 11% | 21 | 25% | 84 |
| 2004 | 18 | 24% | 12 | 16% | -- ⁵ | -- ⁵ | 11 | 14% | -- ⁵ | -- ⁵ | 12 | 16% | 20 | 26% | 76 |
| 2005 | 21 | 27% | 6 | 8% | -- ⁵ | -- ⁵ | 13 | 17% | -- ⁵ | -- ⁵ | 14 | 18% | 21 | 27% | 78 |
| 2006 | 18 | 29% | 8 | 13% | -- ⁵ | -- ⁵ | 14 | 23% | -- ⁵ | -- ⁵ | 8 | 13% | 13 | 21% | 62 |
| 2007 | 15 | 25% | 11 | 19% | -- ⁵ | -- ⁵ | 10 | 17% | -- ⁵ | -- ⁵ | 8 | 14% | 14 | 24% | 59 |
| 2008 | 21 | 32% | 5 | 8% | -- ⁵ | -- ⁵ | 13 | 20% | -- ⁵ | -- ⁵ | 8 | 12% | 17 | 26% | 66 |
| 2009 | 21 | 37% | -- ⁵ | -- ⁵ | 0 | 0% | 9 | 16% | -- ⁵ | -- ⁵ | 9 | 16% | 14 | 25% | 57 |
| 2010 | 19 | 31% | -- ⁵ | -- ⁵ | -- ⁵ | -- ⁵ | 13 | 21% | 0 | 0% | 5 | 8% | 20 | 32% | 62 |
| 2011 | 14 | 28% | 6 | 12% | -- ⁵ | -- ⁵ | 7 | 14% | -- ⁵ | -- ⁵ | 5 | 10% | 16 | 32% | 50 |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Essex County, Massachusetts¹, 2002–2011²

| | HIV and AIDS diagnosed within two months | All HIV infection diagnoses | % diagnosed with HIV and AIDS within two months |
|-------|--|--------------------------------|--|
| Year: | N | N | % |
| 2002 | 35 | 88 | 40% |
| 2003 | 27 | 84 | 32% |
| 2004 | 42 | 76 | 55% |
| 2005 | 23 | 78 | 29% |
| 2006 | 22 | 62 | 35% |
| 2007 | 22 | 59 | 37% |
| 2008 | 21 | 66 | 32% |
| 2009 | 21 | 57 | 37% |
| 2010 | 25 | 62 | 40% |
| 2011 | 23 | 50 | 46% |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/13

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Essex County, Massachusetts,¹ 2009–2011²

| | HIV and AIDS diagnosed within two months | All HIV infection diagnoses | % diagnosed with HIV and AIDS within two months |
|--|---|--------------------------------|--|
| Gender: | N | N | % |
| Male | 49 | 116 | 42% |
| Female | 20 | 53 | 38% |
| Race/Ethnicity: | N | N | % |
| White (non-Hispanic) | 20 | 53 | 38% |
| Black (non-Hispanic) | 10 | 32 | 31% |
| Hispanic/Latino | 34 | 78 | 44% |
| Asian/Pacific Islander | 5 | 6 | 83% |
| Other/Undetermined ³ | 0 | 0 | 0% |
| Place of Birth: | N | N | % |
| US | 31 | 80 | 39% |
| Puerto Rico/US Dependencies ⁴ | 9 | 18 | 50% |
| Non-US | 29 | 71 | 41% |
| Total | 69 | 169 | 41% |

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2009–2011 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13